REMARKS

The Official Action mailed July 23, 2007 has been carefully considered. Claims 1-15 are pending in the present application and stand rejected. Claims 1 and 12 have been amended and claims 2 and 14 have been cancelled. Reconsideration and allowance of the subject application, as amended, are respectfully requested.

Claim Amendments

Claim 1 has been amended to recite "forming a first solution including an organosulfur compound comprising at least one compound selected from the group consisting of alkyl thiols, aryl thiols, alkyl-aryl thiols, sulfides, disulfides, thiocarbamates, dithiocarbamates, thiophenols, mercaptopyridines, mercaptoanilines, thiophenes or thiophosphates, in a first solvent." Support for this amendment may be found in presently cancelled claim 2. No new matter has been added by this amendment. Claim 12 has been similarly amended. In addition, claim 14 has een cancelled.

Rejections Under 35 USC §§102/103

Claims 1, 2, 5-8 and 12-15 stand rejected under 35 USC §102(b) as being anticipated by Kanai. Furthermore, claims 3-4 stand rejected under 35 USC §103(a) as being unpatentable over Kanai in view of Thompson. In addition, claims 9-11 stand rejected under 35 SUC §103(a) as being unpatentable in view of Kanai.

As noted above, claim 1 is now directed to forming a first solution including an organosulfur compound comprising at least one compound selected from the group consisting of alkyl thiols, aryl thiols, alkyl-aryl thiols, sulfides, disulfides, thiocarbamates, dithiocarbamates, thiophenols, mercaptopyridines, mercaptoanilines, thiophenes or thiophosphates, in a first solvent, mixing the first solution with a second solution including a polymeric resin, coating a metallic substrate with the mixture of the solutions containing the organosulfur compound and the polymeric resin and curing the metallic substrate coated with the mixture of the solutions, thereby increasing the corrosion resitance of the metallic substrate without using chrome. Claim 12 has been similarly amended, i.e., the organosulfur compound is now noted as comprising at

least one compound selected from the group consisting of alkyl thiols, aryl thiols, alkyl-aryl thiols, sulfides, disulfides, thiocarbamates, dithiocarbamates, thiophenols, mercaptopyridines, mercaptoanilines, thiophenes or thiophosphates.

Applicants respectfully traverse the rejections above in view of the following. Kanai does not appear to disclose utilizing the organosulfur compounds listed above. More specifically, Kanai appears to only disclose the use of a thiocarbonyl group-containing compound, which includes compounds such as thiourea. See, *Kanai*, Col. 3, lines 45 through Col. 5, line 40. However, the disclosure of Kanai does not appear to extend from such thiocarbonyl group-containing compounds. Because Kanai does not disclose every element and limitation recited in the amended claims 1 and 12, Applicants respectfully submit that Kanai does not anticipate or render obvious the subject matter of these claims or the claims dependent therefrom.

Kanai was also cited, along with Thompson, in support of a rejection under 35 USC §103(a) with respect to dependent claims 3 and 4. Accordingly, the Applicants note the following with respect to the rejection of Kanai in view of Thompson.

As noted above, Kanai limits its disclosure to the use of thiocarbonyl group-containing compounds. Kanai recites that "it is believed that (1) an ion of a thiol group in a thiocarbonyl group containing compound is adsorbed onto an active site on the metal surface such as a zinc surface or an aluminum surface when anticorrosive coatings are applied, whereby exerting the anticorrosive effect." Col. 3, lines 52-56 (emphasis added). In addition, Kanai teaches that "a thiocarbonyl compound, especially one having the both atoms simultaneously readily undergoes the formation of a chelate bond on the zinc or aluminum..." Col. 4, lines 7-13.

Accordingly, from the above, one of ordinary skill in the art would conclude from the teaching of Kanai that it would be necessary to incorporate a compound including a thiocarbonyl group, i.e., as illustrated by the formula below,

and that an ion of the thiol group is adsorbed onto an active site on the metal surface and that such compound would undergo a chelate bond on the zinc or aluminum. As such, Kanai's disclosure starts and stops with thiocarbonyl compounds and critically relies upon the chelating

features of such unsaturated functional group with a given metal surface. Therefore, based on the above, it is not believed that one of ordinary skill would move on to Thompson as originally suggested by the *Office Action* of December 8, 2006. This is clearly reasonable to conclude as the alkylthiols disclosed by Thompson do not contain the unsaturated functionality to form an ion or form the chelate bond.

More specifically, the alkylthiols of Thompson undergo a Michael reaction with the acrylate type and acrylonitrile compounds. See, *Thompson*, Col. 1, line 39 to Col. 2, line 16. That is, the thiol compounds disclosed are combined or added across an unsaturated bond in the acrylate-type and acrylonitrile compounds to form a sulfur containing corrosion inhibitor including amino-containing groups. See Col. 1, lines 24-32 and lines 39-53.

This is worthy of note as it appeared that the Office Action suggested that Thompson "further suggests that the alkylthiol and acrylic resin are mixed in solution form." *Office Action* of December 8, 2006, page 5. The fact, however, is that Thompson emphasized that the alkylthiol reacts with acrylic monomer, and not polymethylmethacrylate (PMMA). This is worth mentioning as claims 1 and 12, as currently amended, recite either that the organosulfur compound is dissolved in a solution in which said polymeric resins are dissolved or that the organosulfur compound is mixed with the polymeric resin. Such features of claims 1 and 12 are not disclosed or suggested by Thompson.

Furthermore, it appears that all of the sulfur containing compounds of Thompson include a saturated bond between the thiol (RS-) and the acrylate-type or acrylonitrile co-reactant. Stated another way, the reactants and reactions relied upon by Thompson do not produce the thiocarbonyl group-containing compounds of Kanai. Therefore, it is submitted that a person of ordinary skill in the art would not conclude that one would be capable of utilizing the compounds of Thompson as a substitute for those of Kanai, as all of the reaction products of Thompson fail to supply an unsaturated thiocarbonyl functionality.

Accordingly, the Applicant respectfully asserts that the references cited above fail to anticipate or render obvious the presently claimed subject matter of independent claims 1 and 12 as well as the claims dependent therefrom.

Double Patenting

Claims 1-11 and 12-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of co-pending application no. 10/786,379, corresponding to US PGPUB No. 2005/0186347 A1, in view of Thompson. The Applicants have again noted this rejection and will file a terminal disclaimer with respect to or with co-pending application no. 10/786,379 once it is indicated that there is allowable subject matter in both applications, in accordance with MPEP §804 I B1.

Having dealt with all the objections raised by the Examiner, it is respectfully submitted that the present application, as amended, is in condition for allowance. Thus, early allowance is earnestly solicited.

If the Examiner desires personal contact for further disposition of this case, the Examiner is invited to call the undersigned Attorney at 603.668.6560.

In the event there are any fees due, please charge them to our Deposit Account No. 50-2121.

Respectfully submitted,

By: /Donald J. Perreault/
Donald J. Perreault
Reg. No. 40,126
Grossman, Tucker, Perreault & Pfleger, PLLC
55 South Commercial Street
Manchester, NH 03101
603-668-6560